

Section 11	MANAGEMENT OF CHANGE EXAMPLE	Revision No.: 0 Date: April 1998 Page 1 of 4
{INSERT FACILITY IDENTIFICATION}		PROCESS SAFETY MANAGEMENT / RISK MANAGEMENT PROGRAM

11. MANAGEMENT OF CHANGE

11.1 PURPOSE

The purpose of the Management of Change (MoC) procedure is to ensure that system changes are properly reviewed against original system design specifications and can be accomplished safely, and that the systems are ready to operate safely in accordance with original system design intent following implementation of the change.

11.2 SCOPE

{INSERT FACILITY NAME} will complete a MoC review for any temporary or permanent change, other than replacement in kind, affecting OSHA PSM and/or EPA RMP-regulated processes, which presently include the {INSERT PROCESS AREAS} processes. Change is defined as all modifications to raw materials, process technology (i.e., processing conditions), facility (e.g., building, fire protection, services, etc.), equipment, and procedures. Replacement in kind is defined as a replacement of existing equipment with identical equipment or with equipment that meets the original design specifications.

11.3 RESPONSIBILITIES

All operators and maintenance personnel are responsible for understanding what a change is, and shall not make a change without first implementing this MoC procedure and completing MoC forms. If operations or maintenance personnel are uncertain if a replacement is a change, they must consult with a {Maintenance Supervisor} or {Plant Superintendent} for instruction before proceeding. The {Maintenance Supervisor} and/or {Plant Superintendent} will be responsible for procuring replacements which are the same manufacturer and model number and original equipment manufacturer parts or thoroughly reviewing substitutes to ensure that they comply with the original design specifications and design intent. The {Maintenance Supervisor} and/or {Plant Superintendent} will be responsible for reviewing MoC forms, evaluating if a proposed change deviates from original system design specifications and determining whether it is a change; arranging for a PHA review of the change, if necessary; authorizing changes and system startup following change; and maintaining all required documentation for this procedure.

The {Plant Superintendent} is also responsible for advising affected contract employees of the this MoC procedure during on-site contractor orientation prior to work commencement.

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11.4 PROCEDURE

11.4.1 Management of Change Forms

A MoC form, as contained in Attachment 11A to this section, must be completed and submitted to the {Maintenance Supervisor} or {Plant Superintendent} for authorization prior to implementing a change. The person requesting the change, whether an employee or contract worker, shall complete the MoC form. The {Maintenance Supervisor} or {Plant Superintendent} will then review the description of the proposed change and associated hazards to ensure all original system design specifications are satisfied and overall process safety is unaffected prior to providing authorization to proceed with the proposed change.

After the change has been implemented but prior to startup, the MoC form shall be resubmitted to the {Maintenance Supervisor} or {Plant Superintendent} to obtain authorization before implementation and startup of the change. The {Maintenance Supervisor} or {Plant Superintendent} must ensure all PSM and RMP requirements and documentation have been fully addressed or updated and that the change was implemented according to either the original system design specifications or are appropriate modifications prior to providing authorization for startup. If the change requires process safety information to be updated, a PSSR must be completed and documented in accordance with the PSSR procedure prior to providing authorization for startup.

11.4.2 Process Hazard Analysis

If the {Maintenance Supervisor} or {Plant Superintendent} believes a proposed change significantly affects overall process safety or the results of any previously conducted hazard analysis, a hazard analysis will be performed or updated in accordance with the PHA procedure. Examples of changes that could significantly affect process safety include the following:

- Increasing chemical storage or delivery capacity or new regulated chemical.
- Modifying piping and valve arrangements that can affect how systems can be blocked in, bypassed, or vented in an emergency.
- Changing materials of construction or applying a specification different from the original specifications.
- Modifying control logic, set points (outside of approved ranges or design limits), interlocks, or alarm points.

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- Changing process conditions (i.e., flow, temperature, and pressure outside of previous normal operating range).
- Facility changes that can move fire or impact hazards closer to process areas, affect personnel exposure to gas releases, or affect the ability to evacuate or respond to an emergency.
- Any other changes that may result in a new hazard or adversely affect existing safety systems.

The hazard analysis will be updated to identify potential hazards prior to implementing the change, so that risk reduction options and recommendations can be evaluated. All hazard analysis recommendations will then be addressed prior to providing authorization to proceed with the proposed change. Updating the hazard analysis will require resubmitting the Risk Management Plan.

11.4.3 Resubmitting EPA RMP Hazard Assessment and Risk Management Plan

The Risk Management Plan must be updated and resubmitted every 5 years and within 6 months of any change that requires changing the process hazard analysis, the Offsite Consequence Analysis, or the EPA RMP Prevention Program. If a new regulated chemical is introduced above a threshold quantity, a revised submittal is required no later than the date the chemical is first present. If the inventory of chemicals drops below the EPA RMP thresholds, a revised RMP registration indicating the change must be submitted within 6 months.

If the *{Maintenance Supervisor}* or *{Plant Superintendent}* believes a proposed change affects the maximum inventory of the largest vessel or affects alternative release scenario rates (e.g., through piping size changes), this can affect the distance to endpoint projected in the Hazard Assessment Offsite Consequence Analysis. If the distance will be affected by a factor of 2, the Hazard Assessment must also be revised and resubmitted. Since the distance to endpoint is not necessarily linear with quantity or rate of release, the distance to endpoint will be reassessed with every significant change that can affect distance to endpoint.

11.4.4 Management of Change Training

All operators and maintenance personnel will receive MoC training (i.e., as part of initial classroom training) prior to being qualified to complete MoC forms.

11.5 RECORDKEEPING REQUIREMENTS

All MoC forms will be maintained on file at the facility for the life of the process.

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Attachment 11A

Management of Change Form

MANAGEMENT OF CHANGE		Page 1 of 1	
Facility:		Process Involved:	
Proposed Change Date:			
Prepared By:		Title:	Date:
TYPE OF CHANGE - (circle one)			
Chemical	Process Technology	Facility	Equipment
			Procedural
DESCRIPTION OF PROPOSED CHANGE AND POTENTIAL HAZARDS	<i>Summarize the technical basis for the proposed change and any potential health and safety impacts resulting from the proposed change. Indicate whether the proposed change significantly affects safety or the results of any previous hazard analyses. If the change is temporary, indicate proposed change start and end dates.</i>		
AUTHORIZATION TO PROCEED WITH CHANGE			
Authorized By:		Title:	
Signature:		Authorized Change Date:	
PSM/RMP PROGRAM DOCUMENTATION <i>(To be completed prior to startup following change)</i>			<i>Circle Answer</i>
Have affected personnel (i.e., operations, maintenance, and contract) been informed of and trained in this change?			Yes No
Are operating procedures (OPs) or maintenance procedures required to be updated as a result of this change?			Yes No
If yes, have affected personnel been trained in the updated OPs?			Yes No
Is the PHA, Offsite Consequence Analysis, or RMP applicability affected by this change?			Yes No
If yes, has a hazard assessment update been performed (if needed) and has the revised RMP plan been submitted?			Yes No
Is process safety information required to be updated as a result of this change?			Yes No
If yes, has a Prestartup Safety Review been performed?			Yes No
AUTHORIZATION FOR STARTUP			
Authorized By:		Title:	
Signature:		Authorized Start-Up Date:	